

GCTATAAGGA TCACGGGCCC CAGTCGACGC TGAGCTCCTC TGCTACTCAG AGTTGCAACC TCAGCCTCGCT
 ATG GCT CCC AGC AGC CCC CGG CCC GCG CTG CCC GCA CTC CTG GTC CTG CTC GGG GCT CTG TTC CCA
 MET ALA PRO SER SER PRO ARG PRO ALA LEU PRO ALA LEU PRO ALA LEU LEU VAL LEU LEU GLY ALA LEU PHE PRO
 GGA CCT GGC AAT GCC CAG ACA TCT GTG TCC CCC TCA AAA GTC ATC CTG CCC CGG GGA GGC TCC GTG
 GLY PRO GLY ASN ALA GLN THR SER VAL SER PRO SER LYS VAL ILE LEU PRO ARG GLY GLY SER VAL
 CTG GTG ACA TGC AGC ACC ACC TCC TGT GAC CAG CCG AAG TTG TTG GGC ATA GAG ACC CCG TTG CCT AAA
 LEU VAL THR CYS SER THR SER CYS ASP GLN PRO LYS LEU LEU GLY ILE GLU THR PRO LEU PRO LYS
 AAG GAG TTG CTC CTG CCT GGG AAC AAC CGG AAG GTG TAT GAA CTG AGC AAT GTG CAA GAA GAT AGC
 LYS GLU LEU LEU LEU PRO PRO GLY ASN ASN ARG LYS VAL TYR GLU LEU SER ASN VAL GLN GLU ASP SER
 CAA CCA ATG TGC TAT TCA AAC TGC CCT GAT GGG CAG TCA ACA GCT AAA ACC TTC CTC ACC GTG TAC
 GLN PRO MET CYS TYR SER SER ASN CYS PRO ASP GLY GLN SER THR ALA LYS THR PHE LEU THR VAL TYR
 TGG ACT CCA GAA CCG GTG GAA CTG GCA CCC CTC CCC TCT TGG CAG CCA GTG GGC AAG AAC CTT ACC
 TRP THR PRO PRO GLU ARG VAL GLU LEU ALA PRO LEU PRO SER TRP GLN PRO VAL GLY LYS ASN LEU THR
 CTA CGC TGC CAG GTG GAG GGT GGG GCA CCC CGG GCC AAC CTC ACC GTG GTG CTC CTC CGT GGG GAG
 LEU ARG CYS GLN VAL GLU GLU GLY GLY ALA PRO ARG ALA ASN LEU THR VAL LEU LEU ARG GLY GLU
 AAG GAG CTG AAA CCG GAG CCA GCT GTG GGG GAG CCC GCT GAG GTC ACG ACC ACG GTG CTG GTG AGG
 LYS GLU LEU LYS ARG GLU PRO ALA VAL GLY GLU PRO ALA GLU VAL THR THR VAL LEU VAL ARG
 AGA GAT CAC CAT GGA GCC AAT TTC TCG TGC CGC ACT GAA CTG GAC CTG CCG CCC CAA GGG CTG GAG
 ARG ASP HIS HIS GLY ALA ASN PHE SER CYS ARG THR GLU LEU ASP LEU ARG PRO GLN GLY LEU GLU

FIG. 1A

CTG TTT GAG AAC ACC TCG GCC CCC TAC CAG CTC CAG ACC TTT GTC CTG CCA GCG ACT CCC CCA CAA	LEU PHE GLU ASN THR SER ALA PRO TYR GLN LEU GLN THR PHE VAL LEU PRO ALA THR PRO PRO GLN
CTT GTC AGC CCC CGG GTC CTA GAG GTG GAC ACG CAG GAG ACC GGG GTC GTG TGT TCC CTG GAC GGG CTG	LEU VAL SER PRO ARG VAL LEU GLU VAL ASP THR GLN GLY THR VAL VAL CYS SER LEU ASP GLY LEU
TTC CCA GTC TCG GAG GCC CAG GTC CAC CTG GCA CTG GGG GAC CAG AGG TTG AAC CCC ACA GTC ACC	PHE PRO VAL SER GLU ALA GLN VAL HIS LEU ALA LEU GLY ASP GLN ARG LEU ASN PRO THR VAL THR
TAT GGC AAC GAC TCC TTC TCG GCC AAG GCC TCA GTC AGT GTG ACC GCA GAG GAC GAG GGC ACC CAG	TYR GLY ASN ASP SER PHE SER ALA LYS ALA SER VAL SER VAL THR ALA GLU ASP GLU GLY THR GLN
CGG CTG ACG TGT GCA GTA ATA CTG GGG AAC CAG AGC CAG GAG ACA CTG CAG ACA GTG ACC ATC TAC	ARG LEU THR CYS ALA VAL ILE LEU GLY ASN GLN SER GLN GLU THR LEU GLN THR VAL THR ILE TYR
AGC TTT CCG GCG CCC AAC GTG ATT CTG ACG AAG CCA GAG GTC TCA GAA GGG ACC GAG GTG ACA GTG	SER PHE PRO ALA PRO ASN VAL ILE LEU THR LYS PRO GLU VAL SER GLU GLY THR GLU VAL THR VAL
AAG TGT GAG GCC CAC CCT AGA GCC AAG GTG ACG CTG AAT GGG GTT CCA GCC CAG CCA CTG GGC CCG	LYS CYS GLU ALA HIS PRO ARG ALA LYS VAL THR LEU ASN GLY VAL PRO ALA GLN PRO LEU GLY PRO
AGG GCC CAG CTC CTG CTG AAG GCC ACC CCA GAG GAC AAC GAG CGC AGC TTC TCC TCC TCT GCA ACC	ARG ALA GLN LEU LEU LYS ALA THR PRO GLU ASP ASN GLY ARG SER PHE SER CYS SER ALA THR
CTG GAG GTG GCC GGC CAG CTT ATA CAC AAG AAC CAG ACC CCG GAG CTT CGT GTC CTG TAT GGC CCC	LEU GLU VAL ALA GLY GLN LEU ILE HIS LYS ASN GLN THR ARG GLU LEU ARG VAL LEU TYR GLY PRO
CGA CTG GAC GAG AGG GAT TGT CCG GGA AAC TGG ACG TGG CCA GAA AAT TCC CAG CAG ACT CCA ATG	ARG LEU ASP GLU ARG ASP CYS PRO GLY ASN TRP THR TRP PRO GLU ASN SER GLN GLN THR PRO MET
TGC CAG GCT TGG GGG AAC CCA TTG CCC GAG CTC AAG TGT CTA AAG GAT GGC ACT TTC CCA CTG CCC	CYS GLN ALA TRP GLY ASN PRO LEU PRO GLU LEU LYS CYS LEU LYS ASP GLY THR PHE PRO LEU PRO

FIG. 1B

ATC GGG GAA TCA GTG ACT GTC ACT CGA GAT CTT GAG GGC ACC TAC CTC TGT CGG GCC AGG AGC ACT
 ILE GLY GLU SER VAL THR VAL THR ARG ASP LEU LEU GLU GLY THR TYR LEU CYS ARG ALA ARG SER THR

 CAA GGG GAG GTC ACC CGC GAG GTG ACC GTG AAT GTG CTC TCC CCC CGG TAT GAG ATT GTC ATC ATC
 GLN GLY GLU VAL THR ARG GLU VAL THR VAL ASN VAL LEU SER PRO ARG TYR GLU ILE VAL ILE ILE

 ACT GTG GTA GCA GCC GCA GTC ATA ATG GGC ACT GCA GGC CTC AGC ACG TAC CTC TAT AAC CGC CAG
 THR VAL VAL ALA ALA VAL ILE MET GLY THR ALA GLY LEU SER THR TYR LEU TYR ASN ARG GLN

 CGG AAG ATC AAG AAA TAC AGA CTA CAA CAG GCC CAA AAA GGG ACC CCC ATG AAA CCG AAC ACA CAA
 ARG LYS ILE LYS LYS TYR ARG LEU GLN ALA GLN LYS GLY THR PRO MET LYS PRO ASN THR GLN

 GCC ACG CCT CCC TGA ACCTATCCCG GGACAGGGCC TCTTCCTCGG CCTTCCCATTA TTGGTGGCAG TGGTGCCACA
 ALA THR PRO PRO ***

 CTGAACAGAG TGGAGACAT ATGCCATGCA GCTACACCTA CCGGCCCTGG GACGCCGGAG GACAGGGCAT TGTCCTCAGT

 CAGATACAAC AGCATTGGG GCCATGGTAC CTGCACACCT AAACACTAG GCCACGCATC TGATCTGTAG TCACATGACT

 AAGCCAAGAG GAAGGAGCAA GACTCAAGAC ATGATTGATG GATGTTAAAG TCTAGCCTGA TGAGAGGGGA AGTGGTGGGG

 GAGACATAGC CCCACCATGA GGACATACAA CTGGGAAATA CTGAAACTTG CTGCCCTATTG GGTATGCTGA GGCCACAGA

 CTTACAGAAG AAGTGGCCCT CCATAGACAT GTGTAGCATC AAAACACAAA GGCCACACT TCCTGACGGA TGCCAGCTTG

 GGCACTGCTG TCTACTGACC CCAACCCCTG ATGATATGTA TTTATTCAAT TGTATTTTA CCAGCTATTT ATTGAGTGTC

 TTTTATGTAG GCTAAATGAA CATAGGTCTC TGGCCTCACC GAGCTCCCAG TCCATGTCAC ATTCAAGGTC ACCAGGTACA

 GTTGTACAGG TTGTACACTG CAGGAGAGTG CCTGGCAAAA AGATCAAAATG GGGCTGGGAC TTCTCATTTG CCAACCTGCC

 TTTCCCCAGA AGGAGTGATT TTTCTATCGG CACAAAAGCA CTATATGGAC TGGTAATGGT TCACAGGTTC AGAGATTACC

FIG. 1C

0903262 . 022002
 0903262 . 022002

CAGTGAGGCC TTATTCCCTCC CTCCCCCCC AAACTGACAC CTTTGTTAGC CACCTCCCCA CCCACATACA TTTCTGCCAG
TGTTACAATG AACTCAGCG GTCATGTCTG GACATGAGTG CCCAGGGAAT ATGCCCAAGC TATGCCTTGT CCTCTTGTC
TGTTTGCAAT TCACTGGGAG CTTGCACTAT TGCAGCTCCA GTTTCCTGCA GTGATCAGGG TCCGCAAGC AGTGGGAAG
GGGGCCAAGG TATTGGAGG CTCCCTCCCA GCTTTGGAAG GGTCAATCCG GTGTGTGTGT GTGTATGT GTAGACAAGC
TCTCGCTCTG TCACCCAGG TGGAGTGCAG TGGTGCAATC ATGTTCACT GCAGCTTGA CCTTTGGGC TCAAGTGATC
CTCCACCTC AGCCTCCTGA GTAGCTGGA CCATAGGCTC ACAACACCAC ACCTGGCAA TTTGATTTT TTTTTTTT
TCAGAGACGG GTCTCGCAA CATTGCCAG ACTTCCTTG TGTTAGTAA TAAAGCTTC TCAACTGCCA AAAAAAAAAA
AAAAAA

FIG. 1D

00000000 11220000

[illegible]

AGT GCT TCT GGC AGT TTC CGT TAT GGG TCC AGC TGT GAG TTC TCC TGT GAG CAG GGT TTT	ser ala ser gly ser phe arg tyr gly ser ser ser cys glu phe ser cys glu gln gly phe
GTG TTG AAG GGA TCC AAA AGG CTC CAA TGT GGC CCC ACA GGG GAG TGG GAC AAC GAG AAG	val leu lys gly ser lys arg leu gln cys gly pro thr thr gly glu trp asp asn glu lys
CCC ACA TGT GAA GCT GGT GTG AGA TGC GAT CCT GTC CAC CAG CCC CCG AAG GGT TTG GTG AGG	pro thr cys glu ala val arg cys asp ala val his gln pro pro lys gly leu val arg
TGT GCT CAT TCC CCT CCT ATT GGA GAA TTC ACC TAC AAG TCC TCT TGT GCC TTC AGC TGT GAG	cys ala his ser pro pro ile gly glu phe thr tyr lys ser ser cys ala phe ser cys glu
GAG GGA TTT GAA TTA TAT GGA TCA ACT CAA CTT GAG TGC ACA TCT CAG GGA CAA TGG ACA	glu gly phe glu leu leu tyr gly ser thr gln leu glu cys thr ser gln gly gln trp thr
GAA GAG GTT CCT TCC TGC CAA GTG GTA AAA TGT TCA AGC CTG GCA GTT CCG GGA AAG ATC	glu glu val pro ser ser cys gln val val lys cys ser ser leu ala val pro gly lys ile
AAC ATG AGC TGC AGT GGT GAG CCC GTG TTT GGC ACT GTG TGC AAG TTC GCC TGT CCT GAA	asn met ser cys ser gly glu pro pro val phe gly thr thr val cys lys phe ala cys pro glu
GGA TGG ACG CTC AAT GGC TCT GCA GCT CGG ACA TGT GGA GCC ACA GGA CAC TGG TCT GGC	gly trp thr leu asn gly ser ala ala arg thr cys gly ala thr gly his trp ser gly
CTG CTA CCT ACC TGT GAA GCT CCC ACT GAG TCC AAC ATT CCC CTC TGT GTA GCT GGA CTT TCT	leu leu pro thr cys glu ala pro thr glu ser asn ile pro leu val ala gly leu ser
GCT GCT GGA CTC TCC CTC CTG ACA TTA GCA CCA TTT CTC CTC TGG CTT CGG AAA TGC TTA	ala ala gly leu ser leu leu thr leu ala pro phe leu leu trp leu arg lys cys leu
CGG AAA GCA AAG AAA TTT GTT CCT GCC AGC AGC TGC CAA AGC CTT GAA TCA GAC GGA AGC	arg lys ala lys lys phe val pro ala ser ser cys gln ser leu glu ser asp gly ser

FIG. 2C

TAC CAA AAG CCT TCT TAC ATC CTT TAA GTTCAA AGAATCAGAA ACAGGTGCAT CTGGGAACT A
tyr gln lys pro ser tyr ile leu ***

GAGGGATAC ACTGAAGTTA ACAGAGACAG ATAACCTCTCC TCGGGTCTCT GCCCCTTCTT GCCTACTATG CCAG
ATGCCT TTATGGCTGA AACCGCAACA CCCATCACCA CTTCAATAGA TCAAAGTCCA GCAGGCAAGG ACGGCCT
TCA ACTGAAAAGA CTCAGTGTTT CCTTTCCTAC TCTCAGGATC AAGAAAGTGT TGGCTAATGA AGGGAAGGA
TATTTTCTTC CAGCAAAGG TGAAGAGACC AAGACTCTGA AATCTCAGAA TTCCTTTTCT AACTCTCCCT TG
CTCGCTGT AAAATCTTGG CACAGAAACA CAATATTTG TGGCTTCTT TCTTTTGCCC TTCACAGTGT TTCGA
CAGCT GATTACACAG TTGCTGTCAT AAGAATGAAT AATAATTATC CAGAGTTAG AGGAAAAAA TGAATAAA
AA TATTATAACT TAAAAAATG ACAGATGTTG AATGCCACA GGCAATGCA TGGAGGGTTG TTAATGGTGC
AAATCCTACT GAATGCTCTG TCGAGGGTT ACTATGCACA ATTAATCAC TTTTCATCCCT ATGGGATTCA GTG
CTTCTTA AAGAGTTCTT AAGGATTGTG ATATTTTAC TTGCATTGAA TATATTATAA TCTTCCATAC TTCTTC
ATTC AATACAAGTG TGTAGGGAC TTAAAAAAT TGTAAATGCT GTCAACTATG ATATGGTAAA AGTTACTTA
T TCTAGATTAC CCCCTCATG TTTATTAAACA AATTATGTTA CATCTGTTT AAATTATT TCAAAAGGGA A
ACTATTGTC CCTAGCAAG GCATGATGTT AACGAGAATA AAGTCTCAG TGTTTTACT ACAGTTGTTT TTTC
AAAACA TGGTAGAATT GGAGAGTAAA AACTGAATGG AAGGTTGTA TATTGTCAGA TATTTTCA GAAATAT
GTG GTTCCACGA TGAAAACTT CCATGAGGCC AAACGTTTG AACTAATAA AGCATAAATG CAAACACACA
AAGGTATAAT TTTATGAATG TCTTTGTTG AAAAGAATAC AGAAGATGG ATGTGCTTG CATTCCTACA AA
GATGTTG TCAGATGTGA TATGTAAACA TAATTCTTGT ATATTATGGA AGATTTTAA TTCACAATAG AAAT

FIG. 2D

CG 931251.024002

CACCA TGTAAGAG TCATCTGGTA GATTTTAAAC GAATGAAGAT GTCTAATAGT TATCCCTAT TTGTTTTC
TT CTGTATGTTA GGGTGCTCTG GAAGAGAGGA ATGCCTGTGT GAGCAAGCAT TTATGTTTAT TTATAAGCAG
ATTTAACAAT TCCAAAGGAA TCTCCAGTTT TCAGTTGATC ACTGGCAATG AAAAATTCTC AGTCAGTAAT TGC
CAAAGCT GCTCTAGCCT TGAGGAGTGT GAGAATCAAA ACTCTCCTAC ACTTCCATTA ACTTAGCATG TGTGTA
AAAA AAAAGTTTCA GAGAAGTTCT GGCTGAACAC TGGCAACGAC AAAGCCAAACA GTCAAAACAG AGATGTGAT
A AGGATCAGAA CAGCAGAGGT TCTTTTAAAG GGCAGAAAA ACTCTGGGAA ATAAGAGAGA ACAACTACTG T
GATCAGGCT ATGTATGGAA TACAGTGTTA TTTTCTTTGA AATTGTTTAA GTGTGTGTA TATTATGTA AACT
GCATTA GAAATTAGCT GTGTGAAATA CCAGTGTGGT TTGTGTTTGA GTTTTATTGA GAATTTTAAA TTATAAC
TTA AAATATTTTA TAATTTTAA AGTATATATT TATTTAAGCT TATGTCAGAC CTATTGACA TAACACTATA
AAGGTTGACA ATAAATGTGC TTATGTTT

FIG. 2E

11593626.1 107120302

FIG. 3A

CCGGCCCTCAC TGGCTTCAGG AGCTGAATAC CCTCCAGGC ACACACAGGT GGGACACAA TAAGGGTTT GGA
 ACCACTA TTTTCTCATC ACGACAGCAA CTTAAA ATG CCT GGG AAG ATG GTC GTG ATC CTT GGA GCC
 met pro gly lys met val val ile leu gly ala
 TCA AAT ATA CTT TGG ATA ATG TTT GCA GCT TCT CAA GCT TTT AAA ATC GAG ACC ACC CCA
 ser asn ile leu trp lle met phe ala ala ser gln ala phe lys ile glu thr thr pro
 GAA TCT AGA TAT CTT GCT CAG ATT GGT GAC TCC GTC TCA TTG ACT TGC AGC ACC ACA GGC
 glu ser arg tyr leu ala gln ile gly asp ser val ser leu thr cys ser thr thr gly
 TGT GAG TCC CCA TTT TTC TCT TGG AGA ACC CAG ATA GAT AGT CCA CTG AAT GGG AAG GTG
 cys glu ser pro phe phe ser trp arg thr gln ile asp ser pro leu asn gly lys val
 ACG AAT GAG GGG ACC ACA TCT ACG CTG ACA ATG AAT CCT GTT AGT TTT GGG AAC GAA CAC
 thr asn glu gly thr thr ser thr leu thr met asn pro val ser phe gly asn glu his
 TCT TAC CTG TGC ACA GCA ACT TGT GAA TCT AGG AAA TTG GAA AAA GGA ATC CAG GTG GAG
 ser tyr leu cys thr ala thr cys glu ser arg lys leu glu lys gly ile gln val glu
 ATC TAC TCT TTT CCT AAG GAT CCA GAG ATT CAT TTG AGT GGC CCT CTG GAG GCT GGG AAG
 ile tyr ser phe pro lys asp pro glu ile his leu ser gly pro leu glu ala gly lys
 CCG ATC ACA GTC AAG TGT TCA GTT GCT GAT GTA TAC CCA TTT GAC AGG CTG GAG ATA GAC
 pro ile thr val lys cys ser val ala asp val tyr pro phe asp arg leu glu ile asp
 TTA CTG AAA GGA GAT CAT CTC ATG AAG AGT CAG GAA TTT CTG GAG GAT GCA GAC AGG AAG
 leu leu lys gly asp his leu met lys ser gln glu phe leu glu asp ala asp arg lys
 TCC CTG GAA ACC AAG AGT TTG GAA GTA ACC TTT ACT CCT GTC ATT GAG GAT ATT GGA AAA
 ser leu glu thr lys ser leu glu val thr phe thr pro val ile glu asp ile gly lys
 GTT CTT GTT TGC CGA GCT AAA TTA CAC ATT GAT GAA ATG GAT TCT GTG CCC ACA GTA AGG
 val leu val cys arg ala lys leu his ile asp glu met asp ser val pro thr val arg

TAGCAACAC TCTATATTTA GATTGTTAA ATAAC TAGTG TTGCTTGGAC TATTATAATT TAATGCA TGT TAGG
AAAATT TCACATTAAAT ATTTGCTGAC AGCTGACCCTT TGTCA TCCTTT ATTCCCTTTC ACAAAAT
TTT ATTCCCTATAT AGTTTATTGA CAATAATTTC AGGTTTGTGA AAGATGCCGG GTTTATATT TTTATAGACA
AATAATAAGC AAAGGGAGCA CTGGGTGAC TTTCAGGTAC TAAATACCTC AACCTATGGT ATAATGGTTG AC
TGGGTTTC TCTGTATAGT ACTGGCATGG TACGGAGATG TTTCACGAAG TTTGTTTCATC AGACTCCTGT GCAAC
TTTCC CAATGTGGCC TAAAAAATGCA ACTTCTTTTT ATTTCTTTTT GTAAATGTTT AGGTTTTTTT GTATAGTA
AA GTGATAAATT CTGGAATTAA AAA

FIG. 3D

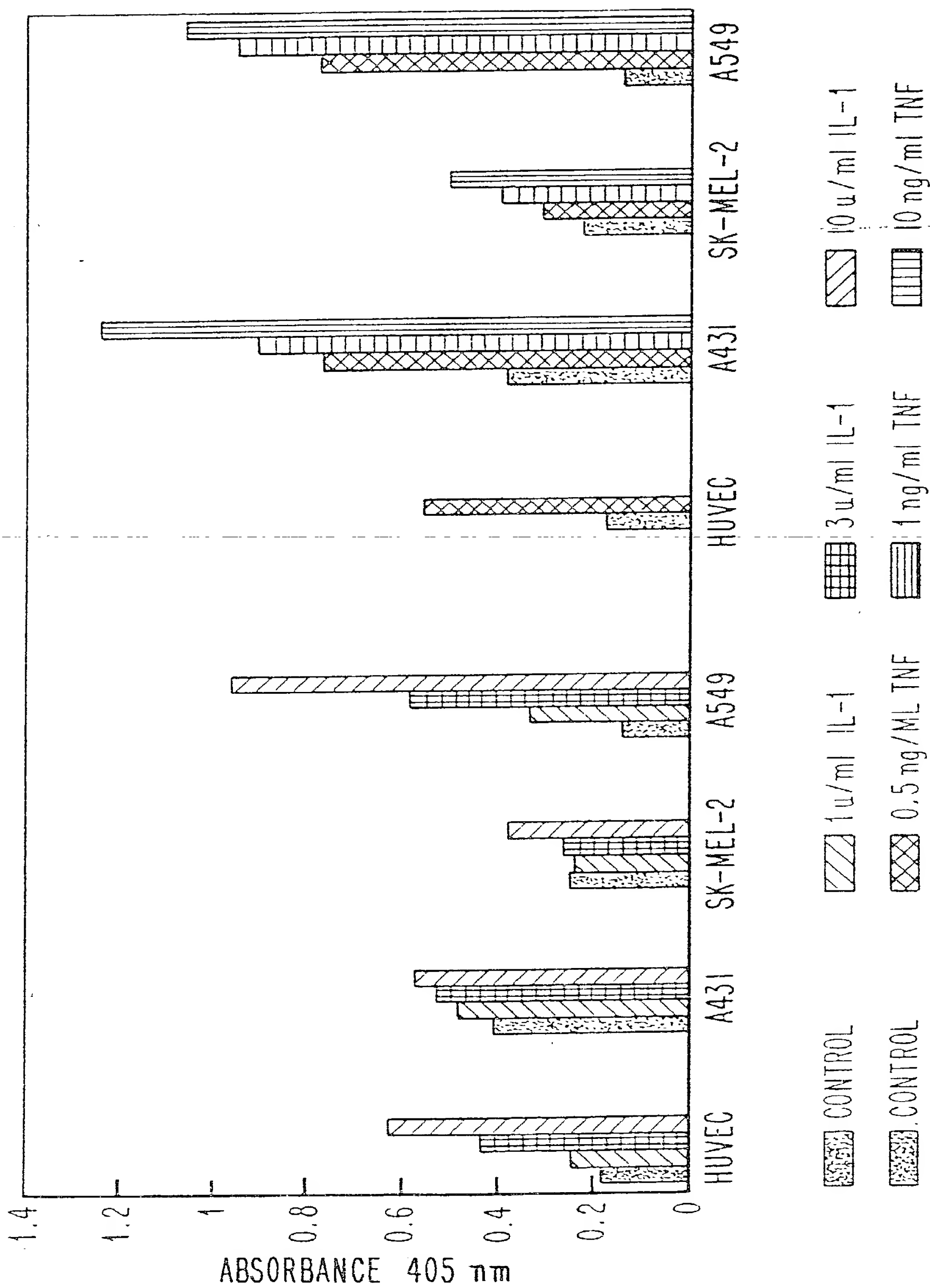


FIG. 4

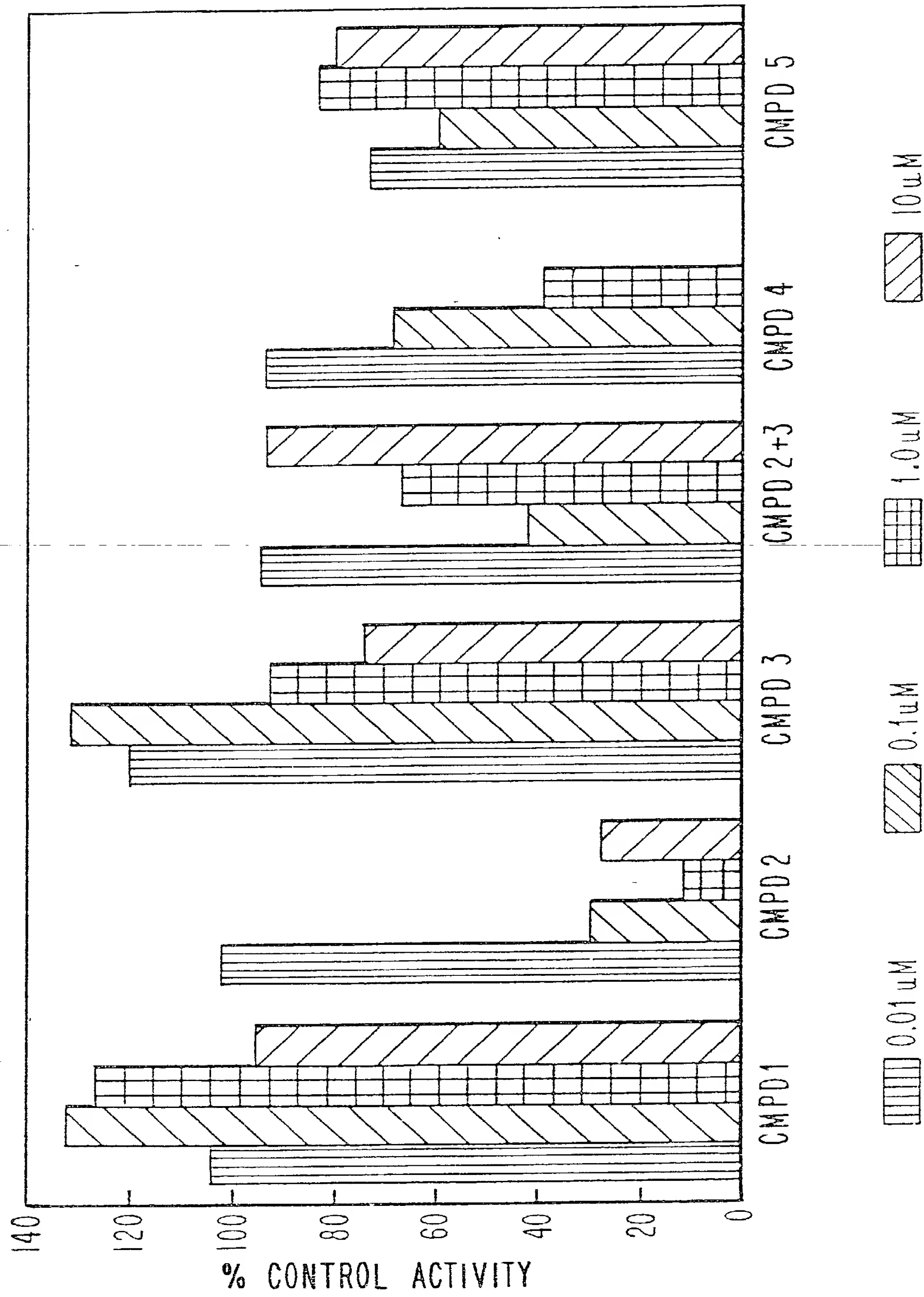


FIG. 5

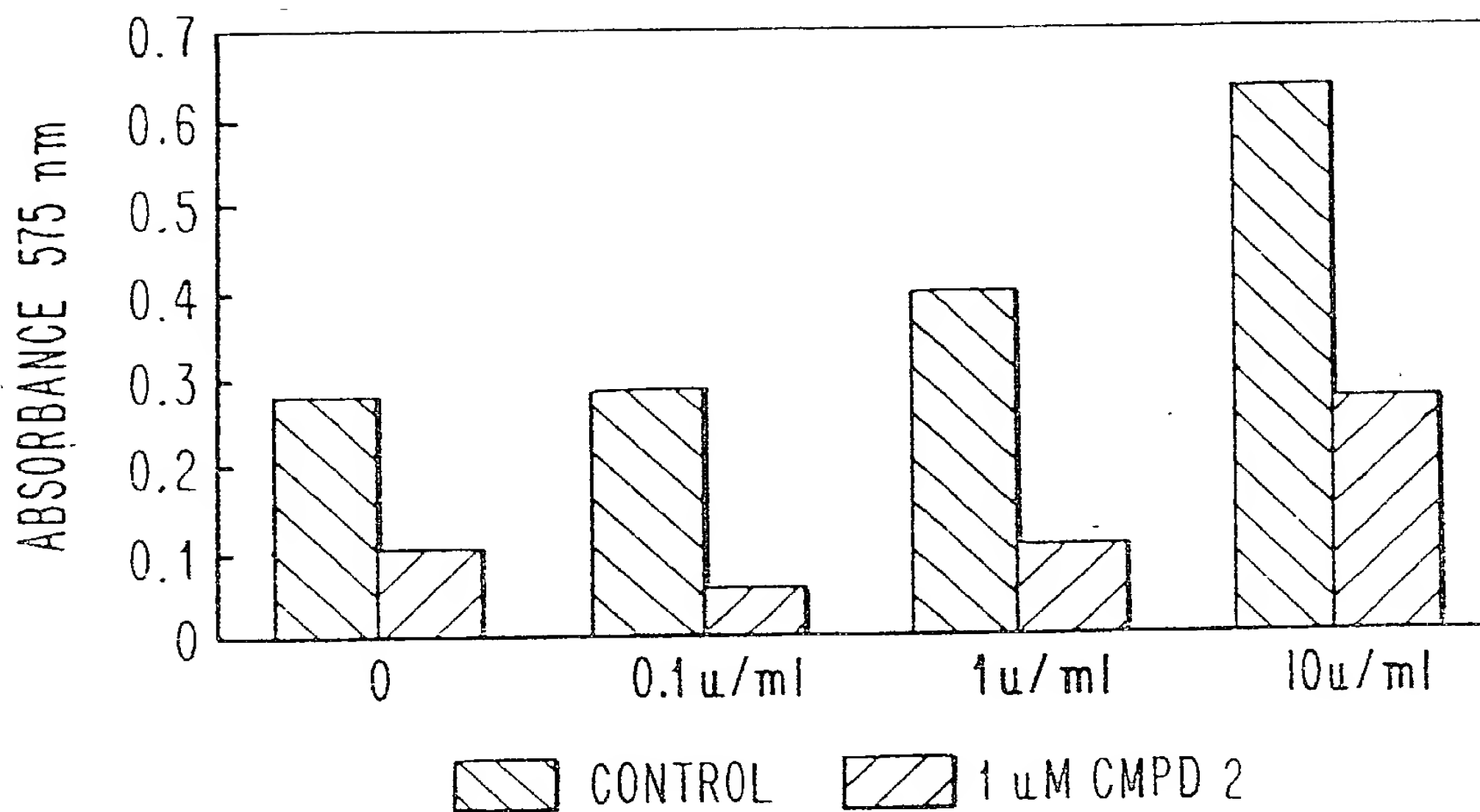


FIG. 6A

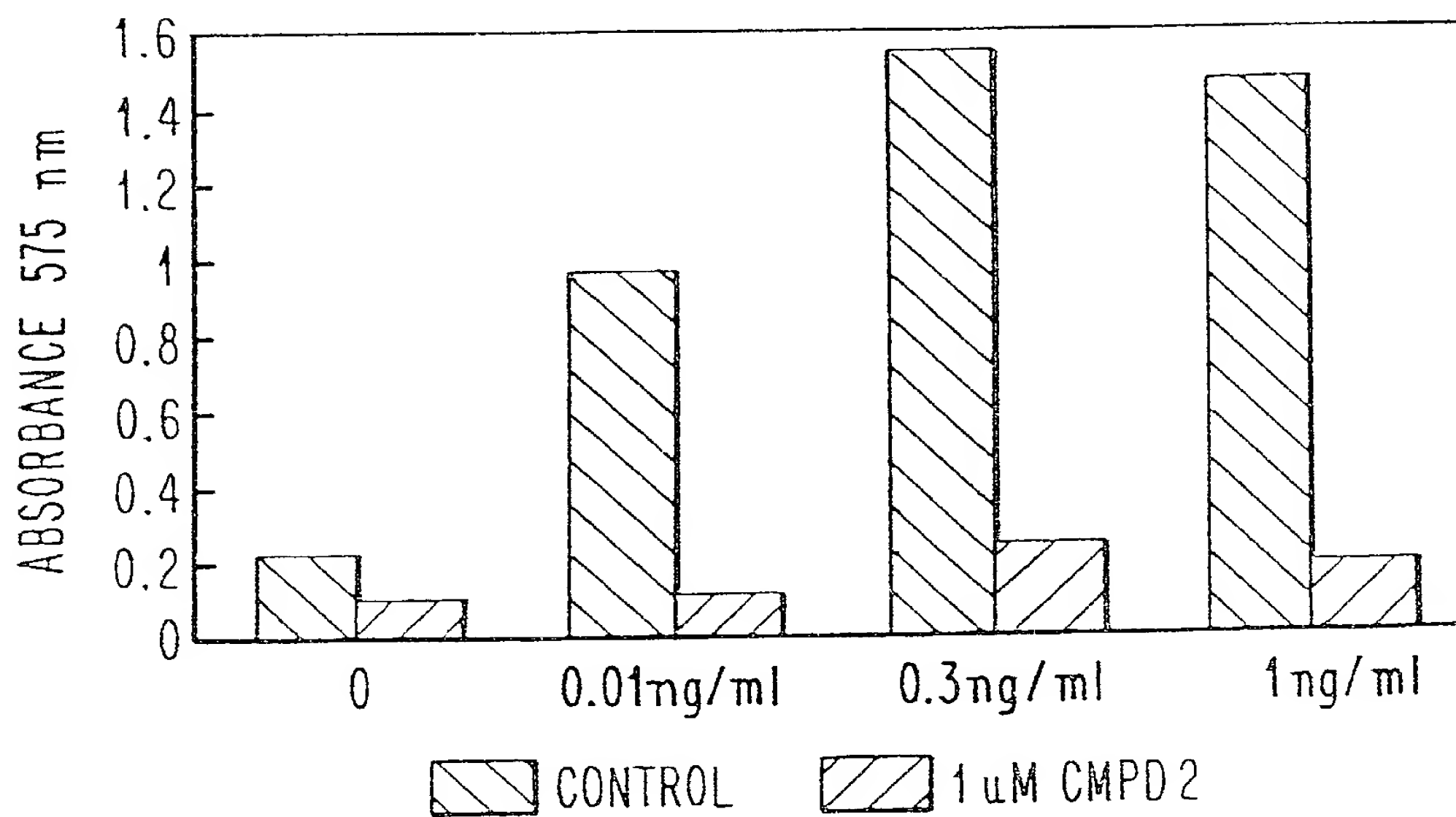


FIG. 6B

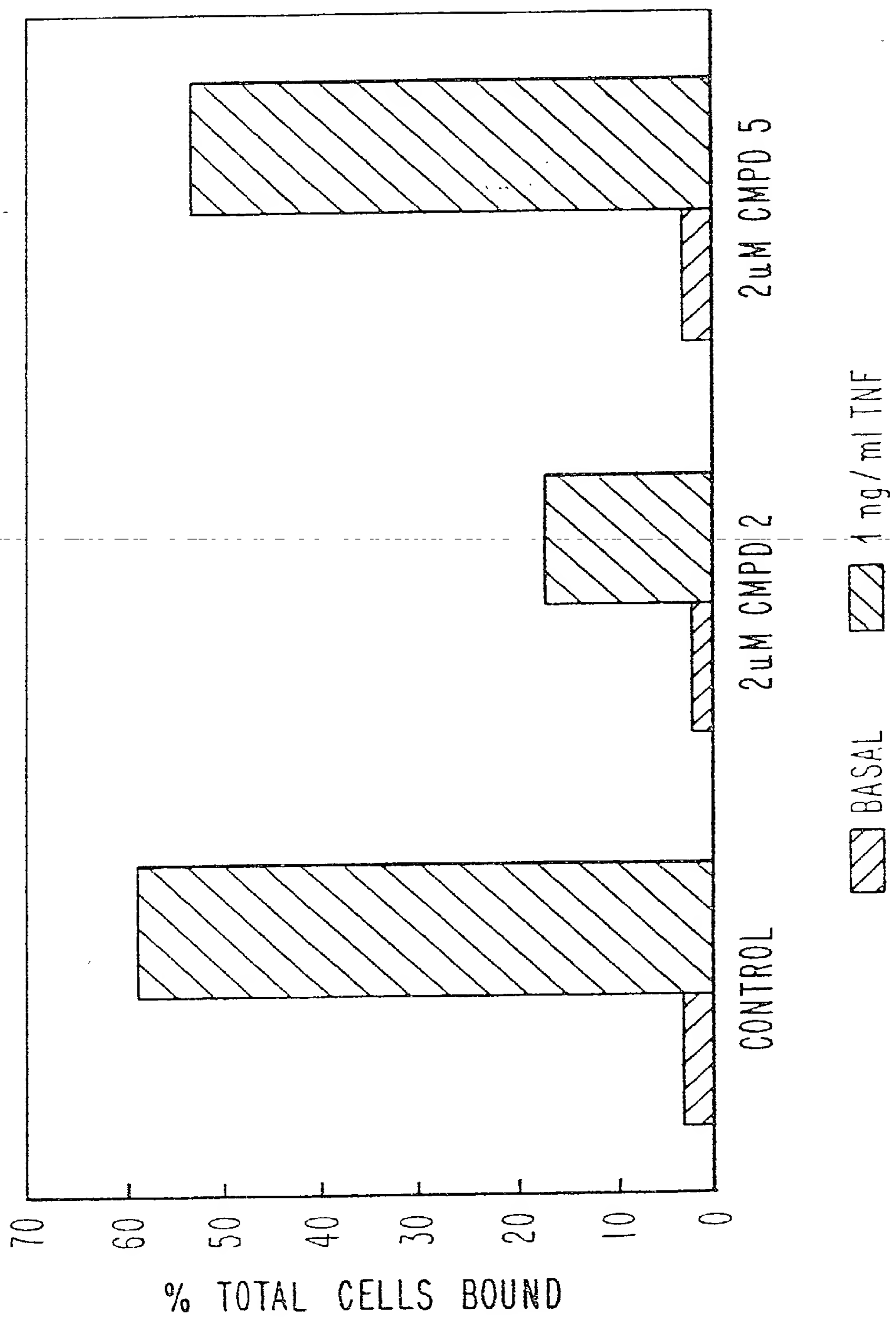
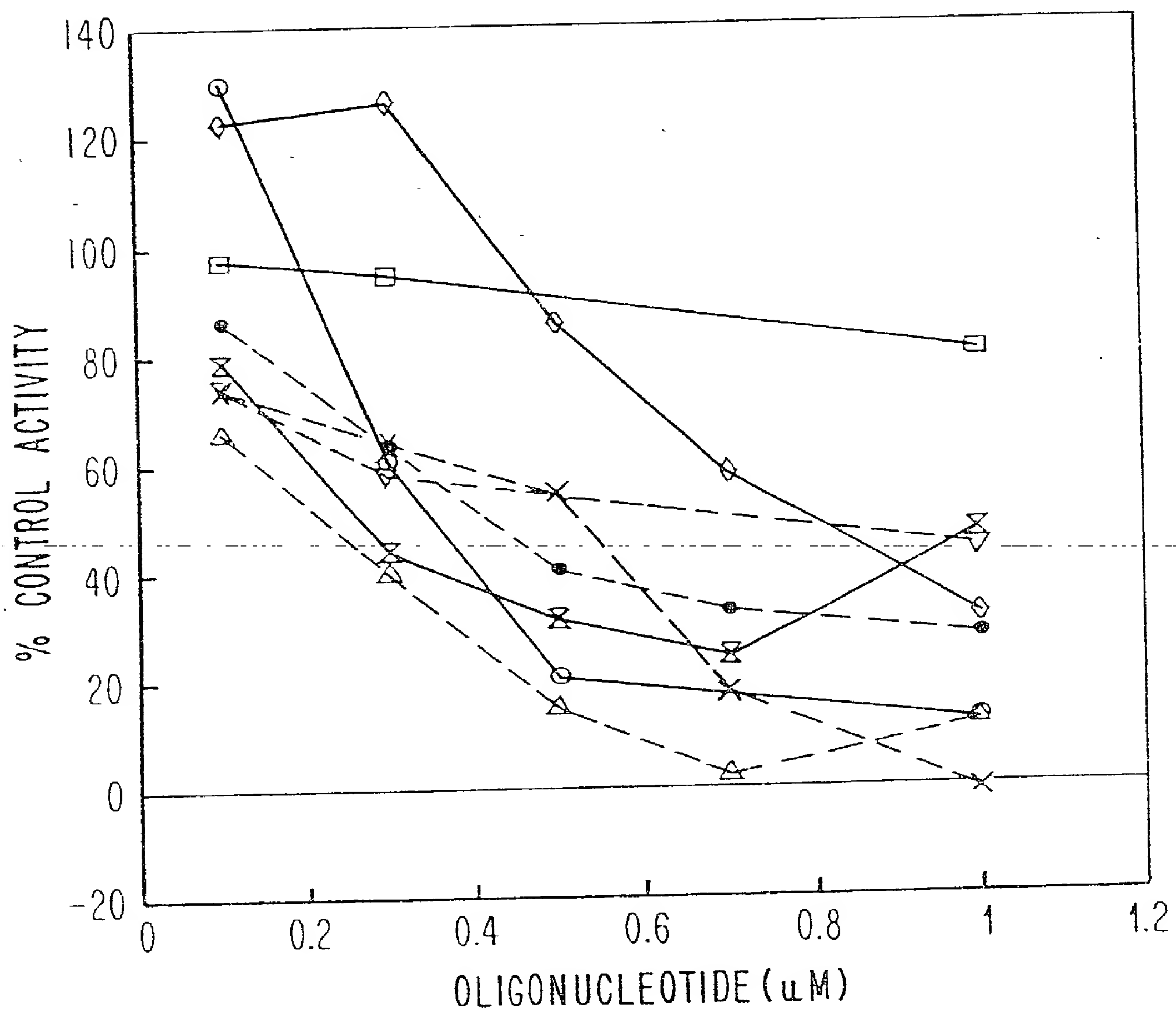
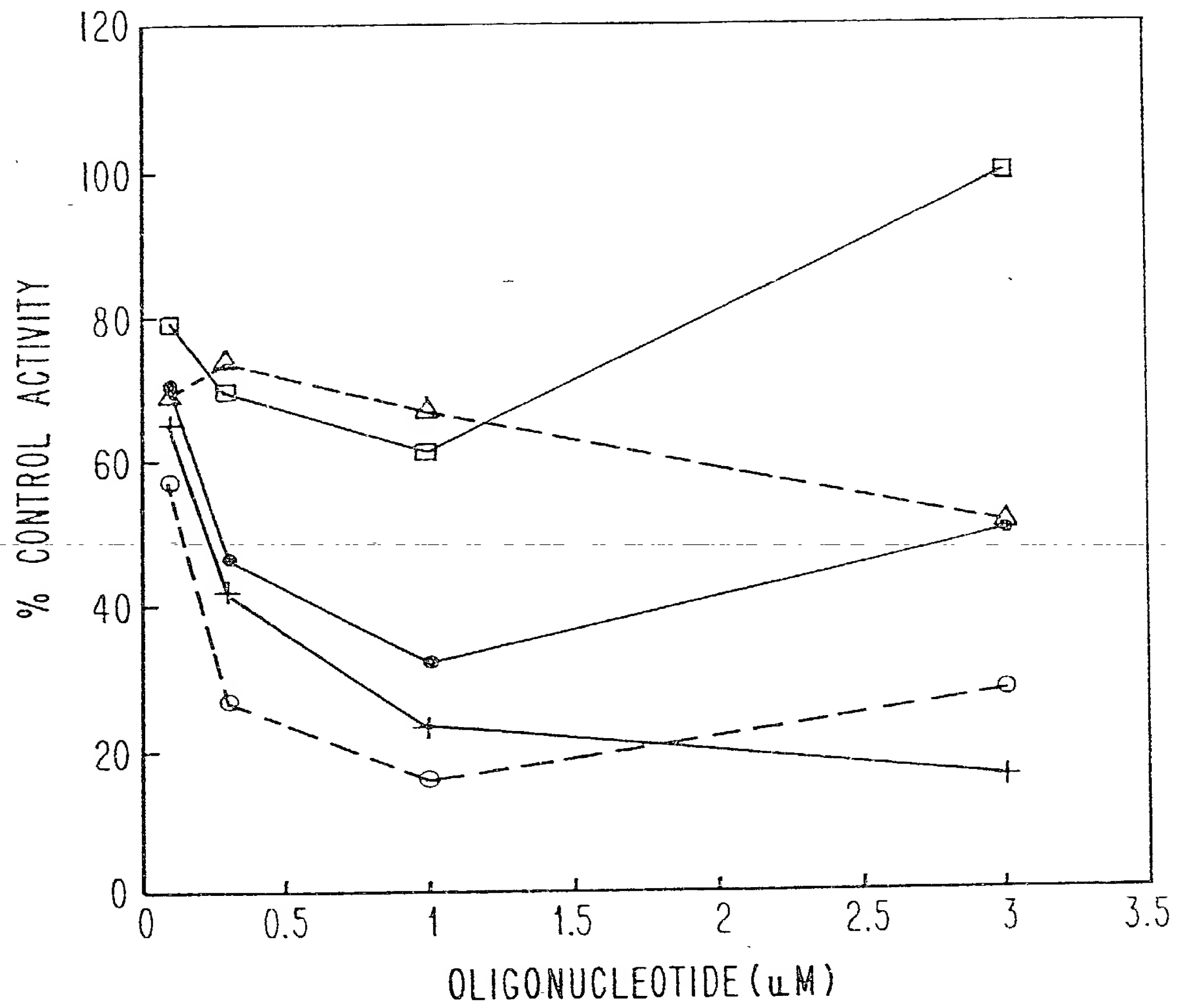


FIG. 7



● 1570 ○ 3067 ▽ 1931 □ 1932
 × 1939 ◇ 2307 △ 2302 ⊗ 1938

FIG. 8



• 1570 + 1939 △ 1940
 □ 1821 ○ 2302

FIG. 9

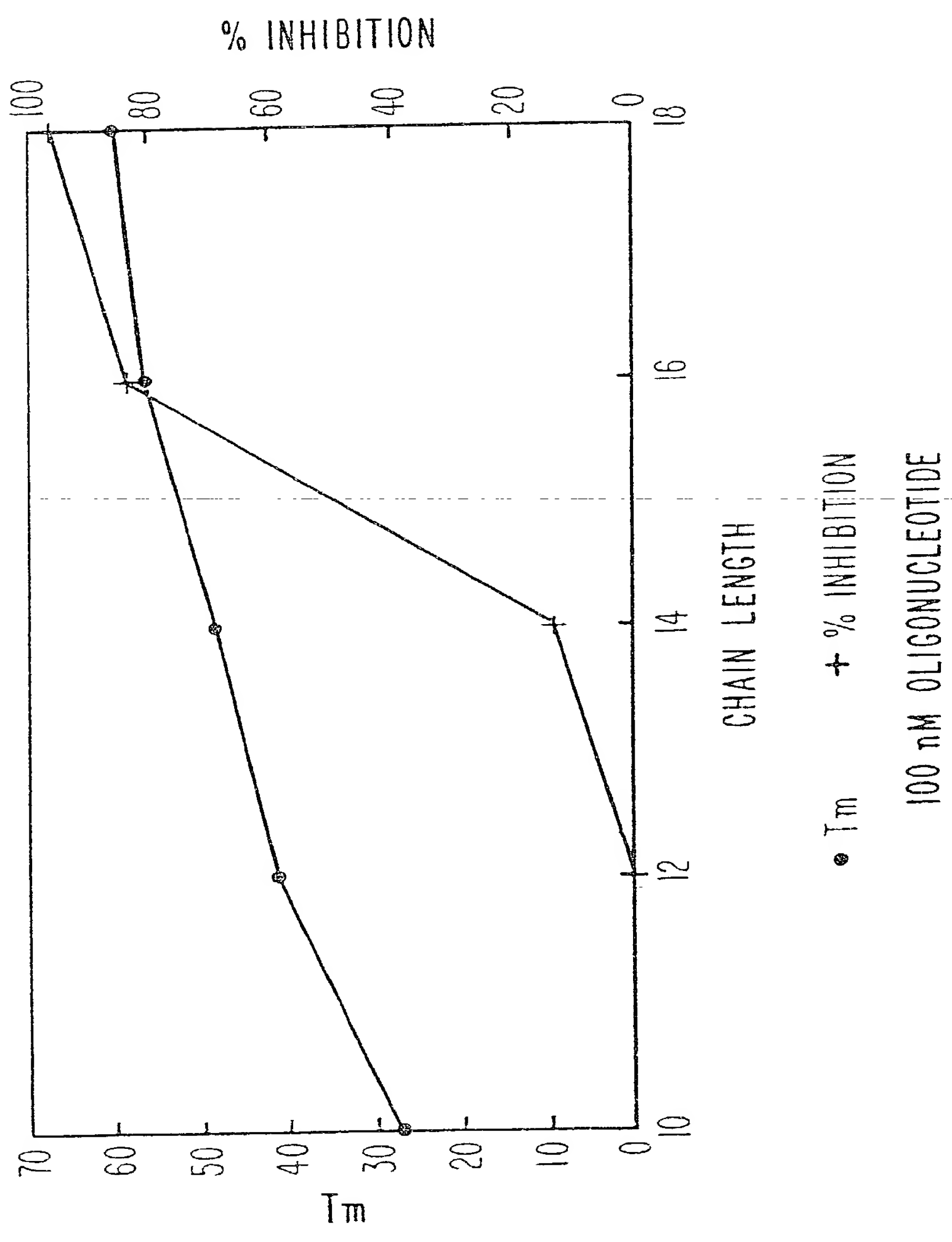


FIG. 10

FIG. 11

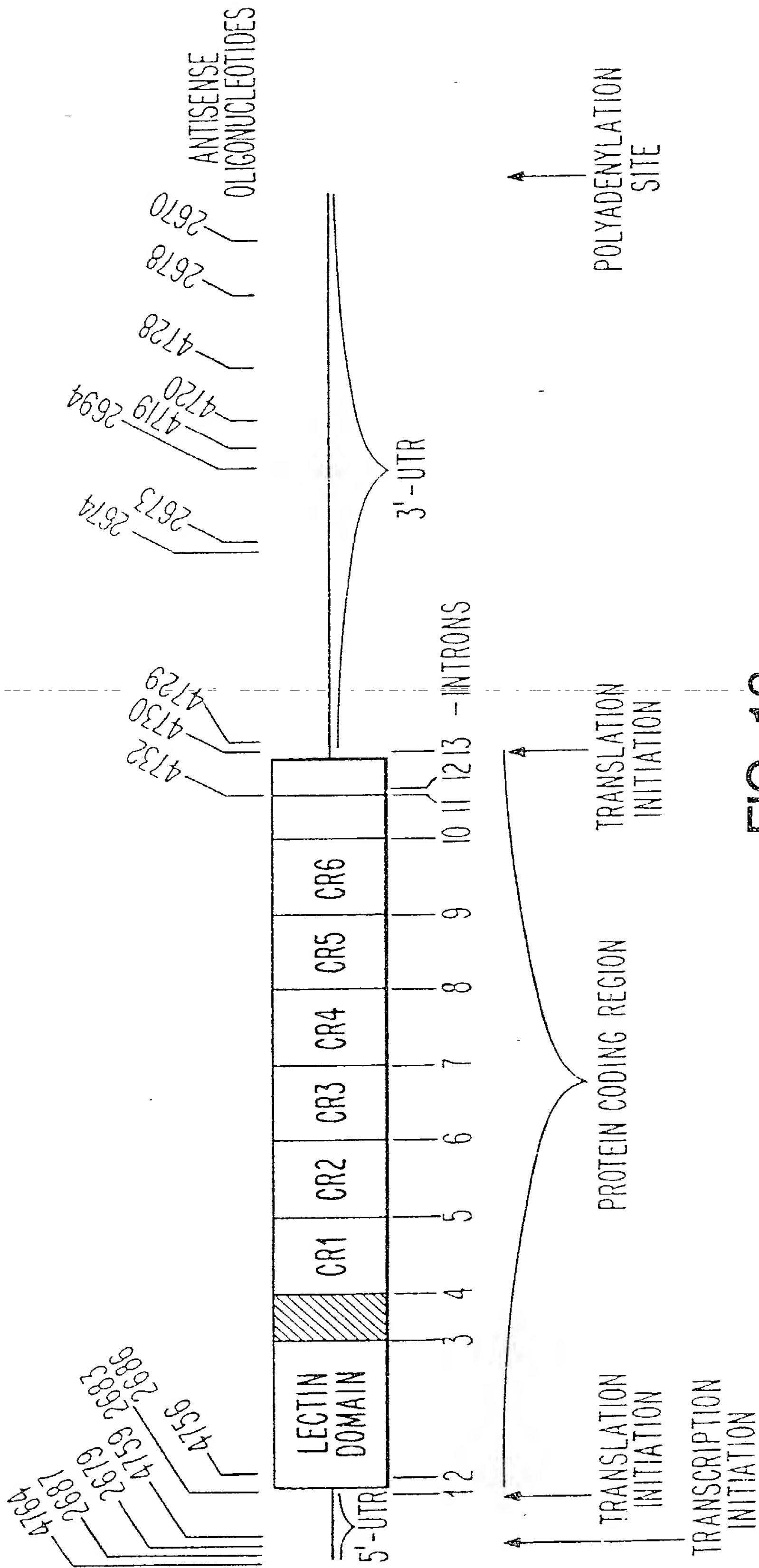


FIG. 13

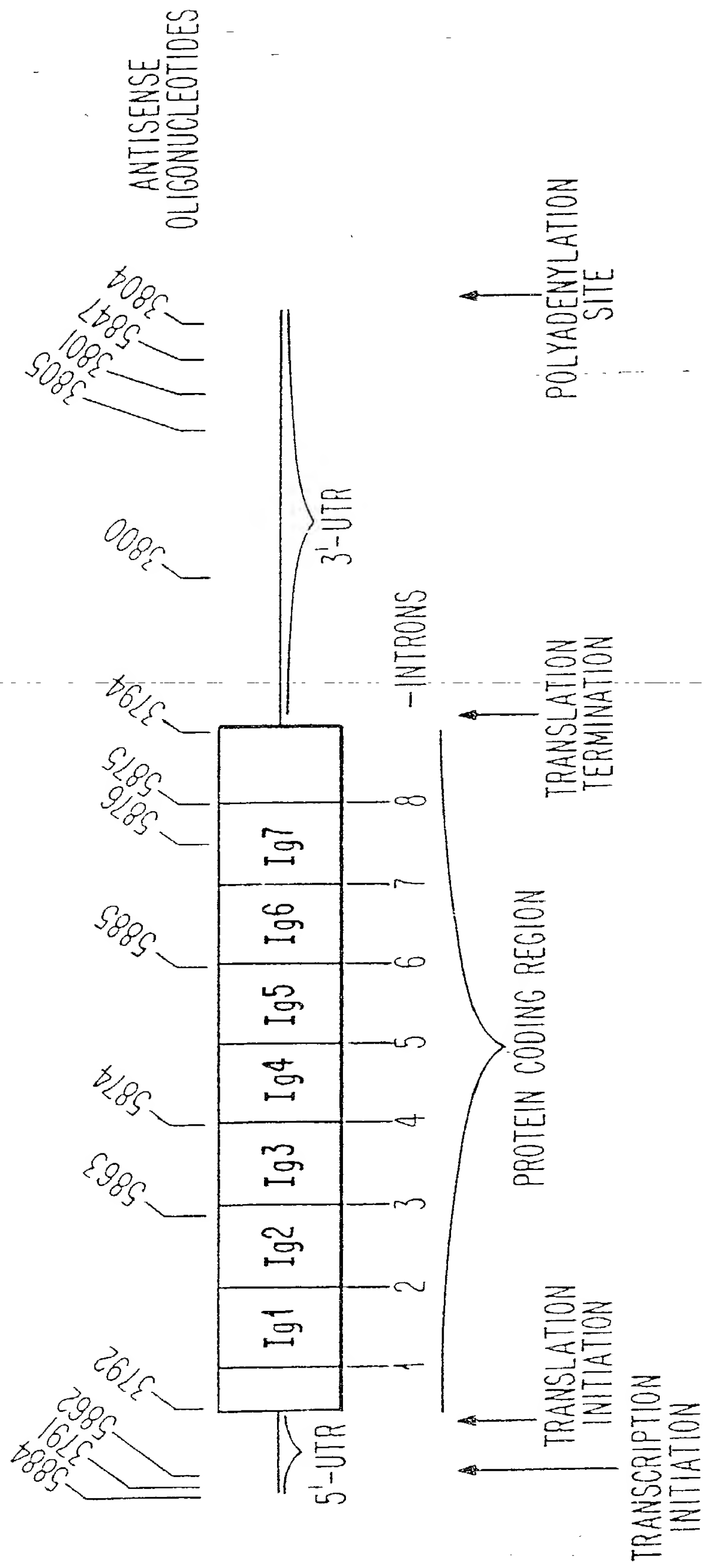
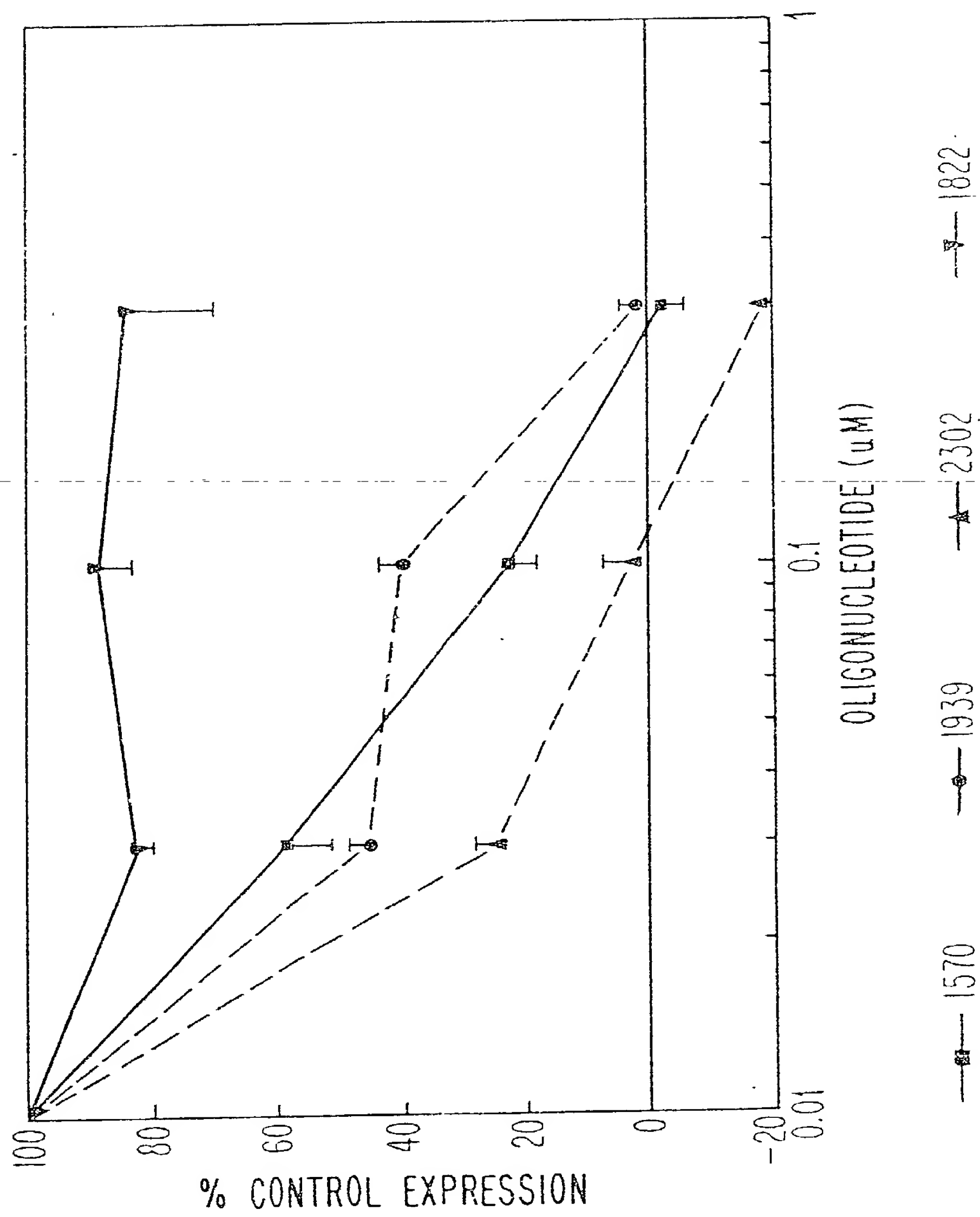


FIG. 14



ॐ
 ॐ
 ॐ
 ॐ

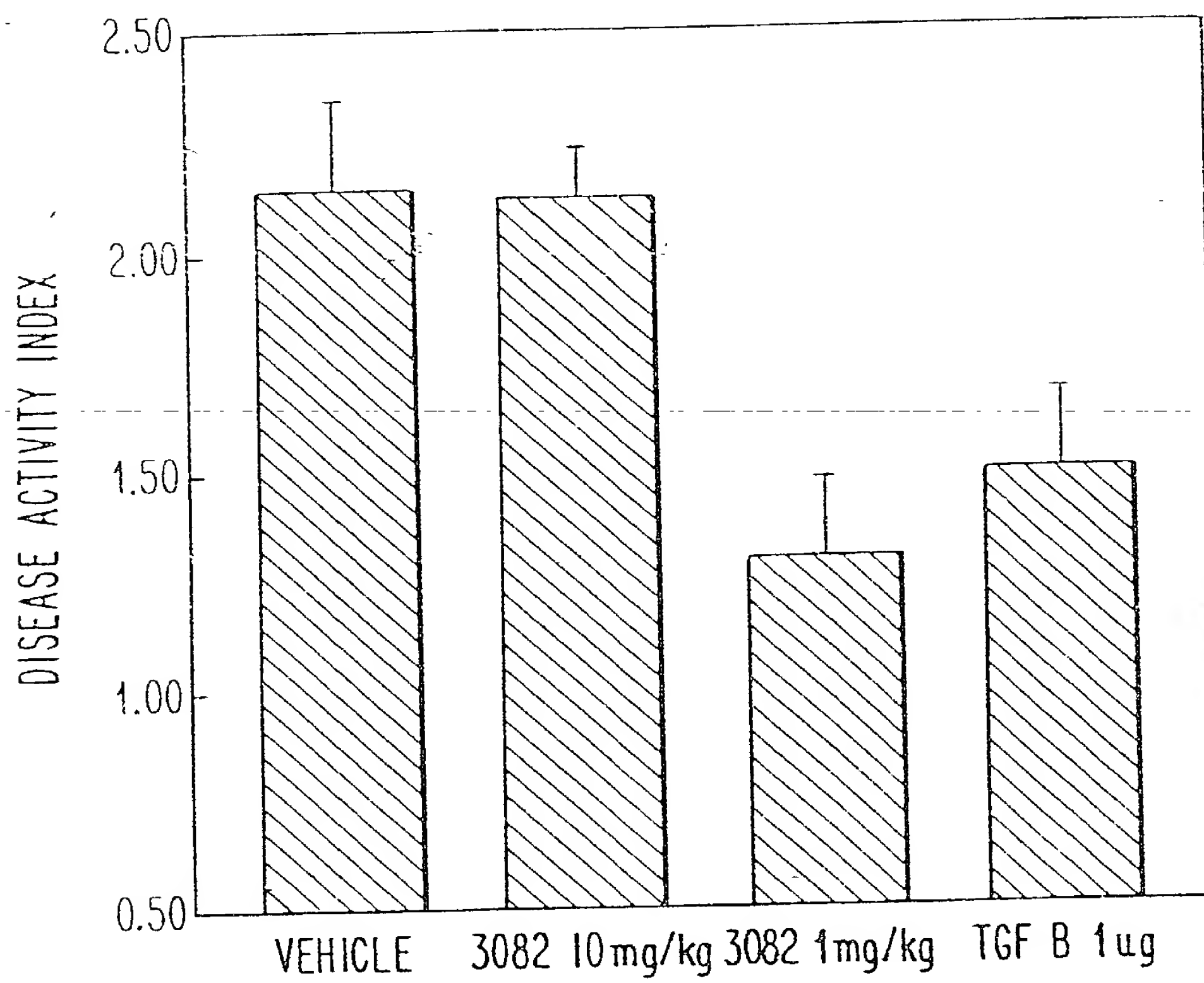


FIG. 16